

## ABSTRACT

A method of combining voice and data for transmission in a single digital wireless telephone call comprises the steps of establishing a circuit-switched data call connection from a mobile phone to a destination, routing the call through a pair of modems connected in-line with the call connection path, multiplexing non-voice digital data with vocoded voice digital data to form a multiplexed digital data stream, and sending the multiplexed digital data stream from the mobile phone to the destination through the pair of modems.

A telephone for combining voice and data into a digitized data stream for delivery to a destination using a single digital wireless telephone call comprises a vocoder, a microphone, a speaker, a multiplexer having an encoded voice input and a data input, and a demultiplexer having a converted data input and a voice data output. The multiplexer is operatively connected to receive encoded voice output from the vocoder and the data. The demultiplexer is operatively connected to provide received voice data from a decoder in the vocoder and non-voice data.

A system for managing a combined data stream comprises a telephone for combining voice and data into the combined data stream which is transmitted from the telephone to the destination.